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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,551	09/27/2001	Hiroki Hachiyama	60188-099	8913

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EXAMINER

THOMPSON, JAMES A

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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/963,551	Applicant(s) HACHIYAMA ET AL.	
	Examiner JAMES A. THOMPSON	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed 24 April 2008 have been fully considered but they are not persuasive.

In the previous rejection of 24 January 2008, Examiner did not rely solely upon Anderson (USPN 5,933,137) to teach the recited claim limitations "wherein image data corresponding to a series of images which are captured consecutively by the imager includes an image which, once stored on the image memory after being compressed and transferred to the display memory after being expanded, is transferred from the image memory to the storage medium while the image is presented by the display based on the image stored on the display memory." In fact, Examiner stated quite clearly that "Anderson does not disclose expressly that the image is transferred from the image memory to the storage medium while the image is presented by the display." While Anderson teaches all the other limitations of claim 2, Anderson does not teach the aforementioned limitations, as quite clearly articulated by Examiner in said previous office action.

Lindsay (USPN 6,219,143 B1) is relied upon to teach "transferring an image from the image memory to the storage medium while the image is presented by the display" which is shown in figure 1 (60→65, 60→70) and column 5, lines 9-17 of Lindsay. A processed image stored in the image memory (some form of memory being an inherent part of element 60) is simultaneously transferred to the display to be displayed and to the storage medium to be stored. By modifying the system of Anderson according to the teachings of Lindsay, the entire system recited in claim 2 is achieved. One of ordinary skill in the art at the time of the invention would have been motivated to make such an obvious alteration to Anderson since doing so would allow, among other things, a user to tell quickly whether a picture that was just taken is worth keeping in memory.

Furthermore, the image displayed by the display in Anderson is previously compressed in two ways. The first way is in terms of resolution, which produces the thumbnail image (column 8, lines 1-5 of Anderson) representation of the full-sized captured image (column 7, lines 58-64 of Anderson). The second way is standard compression, such as done to the screenail image (column 8, lines 6-11 of Anderson). This compressed image data is then expanded for display by the display after being once stored on the display memory, as demonstrated by column 5, lines 58-62 and column 6, lines 7-11 of Anderson. The display memory receives image data which is the raw image data after being processed by the CPU. Part of that processing, as discussed above, includes compressing the image data using standard compression.

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Since claim 2 has been shown to be properly rejected over the cited prior art, claim 8 cannot therefore be deemed allowable merely due to similar reasons. Further, claims 3-4 and 6-9 cannot be deemed allowable merely due to their respective dependencies since said claims depend from properly rejected independent claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 2, 4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US Patent 5,933,137) in view of Lindsay (US Patent 6,219,143 B1).**

Regarding claim 2: Anderson discloses an image processor (figure 3; figure 4A; and column 3, lines 3-6 of Anderson) comprising an imager (figure 3(114) of Anderson) for capturing an image of an object (column 4, lines 14-19 of Anderson) and outputting image data representing the image captured (column 4, lines 18-24 of Anderson); and a compressor/expander (figure 3(344) and column 4, lines 55-60 of Anderson), which receives and compresses the image data and then outputs the compressed image data (column 5, lines 46-47 and column 8, line 1-11 of Anderson) or which receives and expands the compressed image data and then outputs the expanded image data (column 8, lines 41-46 of Anderson). The received raw image data is compressed in two ways. The first way is in terms of resolution, which produces the thumbnail image (column 8, lines 1-5 of Anderson) representation of the full-sized captured image (column 7, lines 58-64 of Anderson). The second way is standard compression, such as done to the scrennail image (column 8, lines 6-11 of Anderson).

Anderson further discloses an image memory (figure 4A(532); column 4, lines 60-62 and column 5, lines 41-45 of Anderson) for storing the compressed image data thereon (column 5, lines 46-49 and column 10, lines 35-40 of Anderson); a display memory (figure 4A(536); column 4, lines 60-62 and column 5, lines 41-45 of Anderson) for storing the expanded image data thereon (column 6, lines 3-11 of Anderson); a display (figure 3(402) of Anderson) for presenting thereon the expanded image data that has been once stored on the display memory (column 5, lines 58-62 of Anderson); and an interface (figure 3

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(352) and column 5, lines 9-16 of Anderson) for recording the compressed image data, which has been once stored on the image memory, on a storage medium (figure 3(354) and column 10, lines 33-44 of Anderson), wherein image data corresponding to a series of images which, once stored on the image memory after being compressed (column 5, lines 46-49 and column 10, lines 35-40 of Anderson) and transferred to the display memory after being expanded (column 5, lines 58-62 of Anderson), are captured consecutively by the imager (column 10, lines 1-12 of Anderson) includes an image which is transferred from the image memory to the storage medium (column 10, lines 22-30 of Anderson), wherein the image is presented by the display based on the image stored on the display memory (column 10, lines 22-30 of Anderson).

Anderson does not disclose expressly that the image is transferred from the image memory to the storage medium while the image is presented by the display.

Lindsay discloses transferring an image from the image memory to the storage medium while the image is presented by the display (figure 1(60→65,60→70) and column 5, lines 9-17 of Lindsay – *processed image stored in image memory (some form of memory inherent part of 60) simultaneously transferred to display to be displayed and to storage medium to be stored*).

Anderson and Lindsay are combinable because they are from the same field of endeavor, namely the control, processing and storage of captured digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to simultaneously display and store the processed digital image data. The motivation for doing so would have been to allow the user to quickly see if the picture just taken is worth keeping. Therefore, it would have been obvious to combine Lindsay with Anderson to obtain the invention as specified in claim 2.

Regarding claim 4: Anderson discloses that the compressor/expander expands the compressed image data (column 8, lines 41-44 of Anderson), representing each of the series of images which is being transferred to the storage medium (column 8, lines 31-36 of Anderson), and then output the expanded image data to the display memory so that each said image being transferred can be presented on the display (column 8, lines 41-50 of Anderson).

Regarding claim 6: Anderson discloses that the display presents the series of images (column 8, lines 6-11 of Anderson) while the compressed image data corresponding to the series of images is stored on the storage medium (column 9, lines 44-50 and column 10, lines 33-44 of Anderson).

Regarding claim 8: Anderson discloses successively receiving image data corresponding to a series of images captured consecutively by an imager (column 4, lines 14-19 of Anderson); and successively compressing the received image data as compressed image data (column 5, lines 46-47 and

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column 8, line 1-11 of Anderson) by a compressor/expander (figure 3(344) and column 4, lines 55-60 of Anderson). The received raw image data is compressed in two ways. The first way is in terms of resolution, which produces the thumbnail image (column 8, lines 1-5 of Anderson) representation of the full-sized captured image (column 7, lines 58-64 of Anderson).

Anderson further discloses temporarily storing the compressed image data (column 5, lines 46-49 and column 10, lines 35-40 of Anderson) on an image memory (figure 4A(532); column 4, lines 60-62 and column 5, lines 41-45 of Anderson); successively outputting the compressed image data to the compressor/expander (column 8, lines 41-46 of Anderson); successively expanding the compressed image data by the compressor/expander (column 8, lines 41-46 of Anderson); successively storing the image data expanded by the compressor/expander (column 6, lines 3-11 of Anderson) on a display memory (figure 4A(536); column 4, lines 60-62 and column 5, lines 41-45 of Anderson); and storing an image of the compressed image data on a storage medium (figure 3(354) and column 10, lines 33-44 of Anderson), wherein the image which, once stored on the image memory after being compressed (column 5, lines 46-49 and column 10, lines 35-40 of Anderson) and transferred to the display memory after being expanded (column 5, lines 58-62 of Anderson), is presented by a display based on the image data stored on the display memory (column 10, lines 22-30 of Anderson).

Anderson does not disclose expressly that the image is stored on the storage medium while the image is presented by the display.

Lindsay discloses transferring an image to the storage medium while the image is presented by the display (figure 1(60→65,60→70) and column 5, lines 9-17 of Lindsay – *processed image stored in image memory (some form of memory inherent part of 60) simultaneously transferred to display to be displayed and to storage medium to be stored*).

Anderson and Lindsay are combinable because they are from the same field of endeavor, namely the control, processing and storage of captured digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to simultaneously display and store the processed digital image data. The motivation for doing so would have been to allow the user to quickly see if the picture just taken is worth keeping. Therefore, it would have been obvious to combine Lindsay with Anderson to obtain the invention as specified in claim 8.

Regarding claims 7 and 9: Anderson discloses that the image memory and the display memory are implemented as a single memory (figure 4a(346,532,536) and column 4, lines 60-62 of Anderson).

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4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US Patent 5,933,137) in view of Lindsay (US Patent 6,219,143 B1) and Kuchta (US Patent 5,164,831).

Regarding claim 3: Anderson discloses that the compressor/expander produces a reduced-size image for each said image captured and compresses the reduced-size image to obtain and output the compressed image data (column 8, lines 6-11 of Anderson), and wherein the compressor/expander expands the compressed image data (column 8, lines 41-44 of Anderson), representing the series of images (column 8, lines 31-34 of Anderson), and then outputs the expanded image data to the display memory so that the reduced-size versions of the series of images can be displayed (column 8, lines 41-46 of Anderson) in the order in which the images have been captured (column 10, lines 3-12 of Anderson).

Anderson in view of Lindsay does not disclose expressly that said reduced-size versions of the series of images are added one by one on the same display so as to present a plurality of images on the display.

Kuchta discloses expanding compressed image data (column 7, lines 30-34 of Kuchta), representing each of a series of images (column 4, lines 47-50 of Kuchta); and outputting the expanded image data to a display memory so that the reduced-sized versions of the series of images are added one by one on the same display (column 4, line 65 to column 5, line 6 of Kuchta) so as to present a plurality of images on the display (column 7, lines 47-52 of Kuchta).

Anderson in view of Lindsay is combinable with Kuchta because they are from the same field of endeavor, namely the control, processing and storage of captured digital image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to display the screen-nail images taught by Anderson in a further reduced-resolution format such that the screen-nail images taught by Anderson are added one by one on the same display so as to present a plurality of images on the display, as taught by Kuchta. The motivation for doing so would have been that using a plurality of thumbnail images improves image selection and downloading (column 7, lines 42-45 of Kuchta). Therefore, it would have been obvious to combine Kuchta with Anderson in view of Lindsay to obtain the invention as specified in claim 3.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing

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date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. THOMPSON whose telephone number is (571)272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625

James A. Thompson
/J. A. T./
Examiner, Art Unit 2625

30 May 2008